

doptera their increase must have had important results" (Beirne, 1947).

With *Pieris* spp., the main predators on eggs, at least in Wiltshire, are the house sparrow and garden warbler; of larvae, the first mentioned, the tit family, and the song thrush (Baker, 1970). Sometimes larvae of *M. brassicae* L. are also cleared by birds (Anonymous, 1953) and cabbages would have often been grown in close proximity to lettuce. However, there is no evidence that *dysodea* fared better after the years when severe frosts caused heavy insectivorous bird mortality — but sparrows were much less affected by this weather (Gurney & Russell, 1885). The increase in sparrows took place over much of the 19th century with some concern being expressed, with a price on their heads, during the 1880's (Omerod, 1889). The increase followed that of human population and wheat production and both were often heavy in the areas favoured by the small ranunculus. Nevertheless, although avian predation on a gregarious larva such as *A. crataegi* was of crucial significance in its fight for survival, that on dispersed larvae would have been much less — especially when it "was much protected by its close resemblance to the flower-stems on which it rests by day" (Barrett, 1897).

The Wild Bird Protection Act around 1882, the zenith of the increase in sparrows at the same time, and the soon to arrive rise in winter temperatures (there were no severe winters from 1896 to 1916 inclusive) which would have been advantageous to other insectivorous birds, would all have increased avian predation over that period — but there is no evidence that they turned their attentions to the small ranunculus. Whilst no doubt many a *dysodea* larva filled a bird crop, there is no synchronous or other evidence that avian predators were a primary reason for this insects demise.

(to be concluded)

Notes and Observations

AN APPARENT PRONOUNCED SECOND GENERATION OF *ECTROPIS CREPUSCULARIA* (D. & S.) IN ESSEX IN 1984—Before 1983 there was no evidence to suggest that *Ectropis crepuscularia* occurred on Danbury Ridge in east-central Essex, save that the late Mr. H. C. Huggins found one at rest on Woodham Walter Common in late May, c. 1965.

E. bistortata (Goeze), on the other hand, is common. The first brood occurs from late March to early May; the second flies during July with a few persisting up to mid-August; and in some years there is a small third generation in October.

In this district the latter species has exhibited scarcely any variation in colour or markings: indeed, in the 18 years I have recorded here, during which period I must have examined many

hundreds, I have noted only one significant departure from the typical grey-brown colouration, and that was a specimen with a whitish ground colour on 18th July 1968.

On 12th August 1983 a large whitish, sparsely marked *Ectropis* appeared well over a week after the last (typical) *bistortata* had occurred. The specimen was shown to Mr. E. C. Pelham-Clinton who considered it to be a typical *crepuscularia*.

On 2nd August 1984, after second brood *bistortata* had been on the wing for a good three weeks, a fresh wave of *Ectropis* occurred, and of a total of 27 individuals noted between that date and 20th August (after which trapping ceased for some days), only a very small proportion conformed in appearance to the local *bistortata* — and, indeed, may well have been late individuals of that species. All but two of the remainder were either sparsely marked, conspicuously whitish insects (similar to the 1983 capture) or possessed a whitish or whitish-grey ground colour. Of the remaining two, one appeared to be consistent with *ab. delamerensis* B. White and the other exhibited varying shades of grey and was scarcely recognisable as an *Ectropis* species!

From the above it is difficult to resist the conclusion that a pronounced second generation of *crepuscularia* occurred on Danbury Ridge in August 1984. I appreciate that opinions differ among lepidopterists as to whether or not there is ever a second brood of *crepuscularia*, but it is certainly very odd that a pronounced flight of *Ectropis*, the vast majority of which were quite different in appearance to the local *bistortata*, should have developed in early August when the second brood of *bistortata* is normally dying out.

Mr. A. J. Dewick tells me that at Bradwell-on-Sea, where trapping has been carried out regularly for nearly 40 years and from which *crepuscularia* has not been claimed, there is virtually no variation in the colour of *bistortata* and no melanic specimen has ever occurred.

I am indebted to Mr. Simon Wood, who is now operating a trap 200 yards from mine, for details of his August records which are included in the above total. G. A. PYMAN, "Treyarnon", The Ridge, Little Baddow, nr. Chelmsford, Essex, CM3 4RT.

SECOND GENERATION OF *ECTROPIS CREPUSCULARIA* (D. & S.) — Having seen Mr. Pyman's note, kindly sent to me in typescript, I am prompted to add my own records of some apparent second generation specimens of *Ectropis crepuscularia* (D. & S.).

My first was a male taken at light on 25th September 1959 near Skibbereen, Co. Cork, a pale specimen with the fine blackish pencilling characteristic of southern *crepuscularia* and just as large as any of the normal May generation. I was not surprised that Mr.